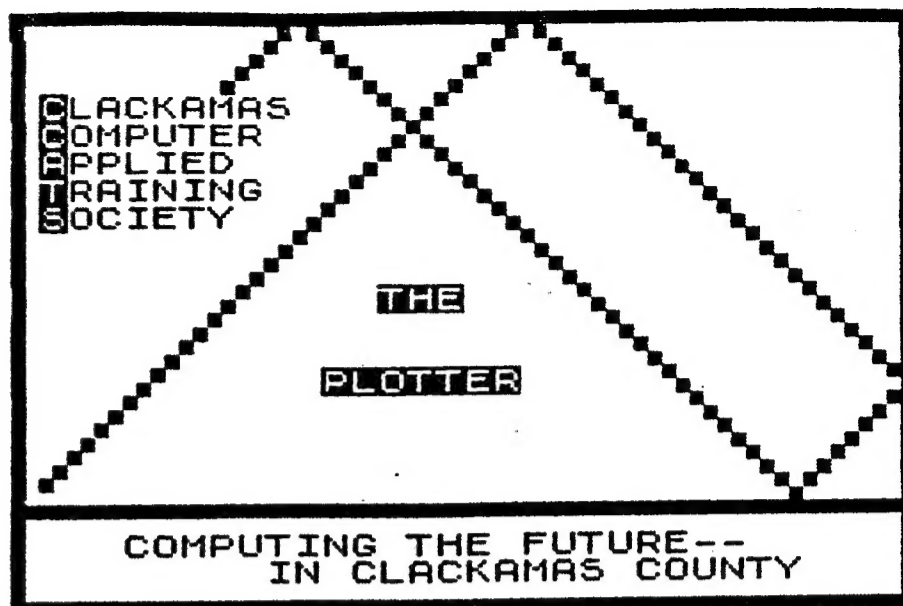


# THE PLOTTER

**CLACKAMAS COMPUTER APPLIED  
TRAINING SOCIETY  
NEWS LETTER**

VOLUME 11                      \*\*                      NUMBER 1  
\*\*\*\*\*  
JANUARY 1993



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## MEETING

**The JANUARY meeting will be:**

on: SAT., JANUARY 16 1993

MEETING open at: 1:30 P.M.  
in: COMMUNITY ROOM  
FAR WEST FEDERAL BANK  
OREGON CITY SHOPPING CENTER

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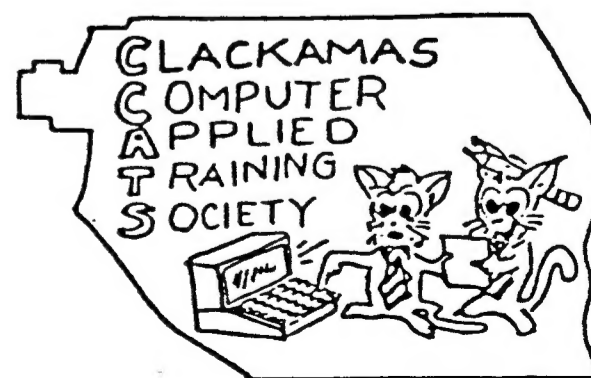
FROM THE EDITORS  
DESK

The edition is rather thin this month as I have had little time to devote to programming or writing. It seems that each issue is "nip and tuck" to get a full news letter of at least 8 pages. Member input, for some reason, has been fair only with our earliest issues. Rod has always had something to contribute, in the early days with information on our TS computers, and now with PCs around, information on PCs.

The December meeting was not held for lack of attendance. So, no minutes and no officer election. Hopefully, January will be better.

One of my sons who is interested in cross country auto racing is working on a computer program to keep track of each contestant. The selected cross country track requires the vehicles to make enough laps to equal about 400 mile. To compound the record problem there is 30 seconds between each started car. Some of those rough riding vehicles suffer failures of all kinds. The course is long enough that the pit location cannot follow the cars.

22 22



Continued from page 1

Thus positions can change at almost any time. I saw a picture of one car limping in minus one front wheel. A lap top computer will be used to run the records program. Such close keeping time is necessary as prizes are awarded for the fastest laps as well as the complete race.

A recent book acquisition contains a short program for a graphic screen dump, rotated 90 degrees for spread sheet printing. Neither GWBASIC nor MSDOS include such a capability as PRINTSCN does not do graphics. Commercial programs are available but this program is interesting as it can be added to or changed. Also there is some explanation for the working of the program.

The program of interest uses a GET statement to load the 8 pixels of each print column into an array. The array is then sent to the printer for printing. The process is repeated across the paper. My program is a duplicate of the original but when I run it the program stops at the GET line with the message that there is a function error. This means there is a mathematical error. Hopefully I will have this program working soon.

Maybe the easiest solution is to spend \$25 and get a disk of the more than 100 programs that are in the book. Who knows, I might have problems with other programs.

This book also has formulas for determining the size of arrays, depending upon the number of columns on the screen. For instance a 10 by 50 graphic figure requires at least 46 elements with a medium resolution (40) screen and 31 for a high resolution screen (80). This seems like a good subject to investigate. Next month the formulas will be given in the news letter. The fact that the GET statement allows the storage of the contents of an array also is of interest.

## BITS & BYTES

by: Rod Gowen

In this column I try to bring you the latest and complete information and news available to me regarding the world of TS computing. One way that I can accomplish this is if I have the support of you, the reader, in collecting news that may be of interest to other readers. If you have any news, rumors or other tidbits of information that fits this description, why not send it along? We will be watching!

### BIG TURNOUT FOR DEC MEETING...

At our December meeting we had 3--count 'em --3 members present to work on the book! WOW! If this keeps up, we will have to scrub the project. You cannot say that you did not know where and when the meeting was going to be. We discussed it in November and it was on the front of the December Plotter. It might be nice if you could at least call to say "I'm sorry, I won't be able to make it." so that we could cancel if there are too few to do anything. We could not have a business meeting so there will be no minutes. We still need a volunteer to be Chairman for 1993. We still need to get the work done on the book. We also want you to talk to your friends who use computers to see if they need help or would like to join our little group. In other words--WE NEED YOU!

### IT'S DUES TIME AGAIN!-----

January is the month in which our annual dues are due once again. If we had had a meeting in December we would have been able to discuss the amount for 1993. Now, we will have to discuss it at the January meeting and those who do not attend will not have a say. If you consider the club a worthwhile effort, then we need your input. If you cannot make the January meeting for some reason, please drop us a note or give us a call to make your opinion known. It will then be taken into consideration when we meet. We paid \$20 for 1992 but had a small reserve left at the end of the year. If we get the book ready for sale before all interest in it dies off, then we will generate a bit of income from it to help support the newsletter.

At this point, the only thing our dues are doing is paying for supplies and the publication and mailing costs of THE PLOTTER. We have about a dozen or so paid subscribers as well as our paid members but also have to cover the dozen or so exchange copies that we mail each month.

PLEASE! If you cannot or will not make the January meeting, LET US KNOW!

### NEW MEETING DAY & TIME-- -----

At the November meeting there was discussion of changing our meeting day and time to one that would be more suitable to more members. We are not "locked" into the 2nd Friday if we want to change. It seemed as though the most acceptable time would be the 3rd Sunday from 1-4 or so. I am all for this time slot. It may even help bring in some new members who could not make the Friday night meetings. Let's talk about it more in upcoming meetings until there is a final decision. When it is finally set we can have our PR man send out a few letters where appropriate to see if we can garner some new interest in what we are here for.

### NEWS EDITOR NEEDED!-----

We need someone to read the incoming newsletters AS THEY ARRIVE and compile a news column for THE PLOTTER each month. I think that we are missing a lot of information that might be of use to our readers. If anyone is interested in helping out, give me a call or let me know at a future meeting.

That's it for now!

See you next time. . .



## READ TS 1000 ON A 2068 Dick Wagner

As it was explained in my article ADVICE TS1000, there was a need to get a hard copy of the TS 1000 program on my large printer. For editorial reasons, I also wished to have a properly running program without errors for the TS 1000 computer. To do this required the actual program to be tested without typing the program on the TS 1000. This meant making a LLIST from the 2068 with a TS 1000 program, properly tested. The inclusion of character codes is what made it a problem.

The program following will not work on the TS 1000 because it includes the conversion to 2068 code. Use the program in the TS 1000 article. TS 2068 users can use the program as it converts the TS 1000 codes to 2068 character codes, producing the identical results. The program in ADVUCE 2068 will look a little different but the text is identical.

The character codes for the TS 1000 are exactly 27 less than the 2068 codes for the capital letters. By adding 27 to the TS 1000 codes the text will be correct for the 2068 display. My program does exactly that by adding 27 to each code in the strings. Line 204 does this.

Two characters used in the program do not work properly by adding 27 to their codes, space and period. As 27 is added to them automatically lines 206 and 207 compensate for the differences. A question mark shows up for "space", and a "6" is displayed where the periods should be, without making the mentioned corrections.

One problem with making a continuous A\$ is that the line formatting must be made in the strings. That is the reason for so many zeros being used. If each string had been processed separately then formatting would have been easier. This would have required sending each string to a subroutine for printing.

>> >>

3 REM THIS PROGRAM CONVERTS T  
S1000 TEXT CODE TO 2068 TEXT COD  
E. LINE 204, 27 IS CHANGED TO 20  
FOR NUMBERS.

5 REM BY DICK WAGNER, NOV. 19  
92

10 LET A\$="50,62,0,46,51,57,42  
,55,42,56,57,0,46,56,0,46,51,0,5  
7,45,42,0,43,58,57,58,55,42,"

12 LET B\$="0,0,0,0,39,42,40,38  
,58,56,42,0,46,0,38,50,0,44,52,4  
6,51,44,0,57,52,0,56,53,42,51,41  
,0,57,45,42,"

14 LET C\$="0,55,42,56,57,0,52,  
43,0,50,62,0,49,46,43,42,0,57,45  
,42,55,42,27,"

16 LET D\$="0,0,0,0,0,0,0,0,0,0,  
0,40,45,38,55,49,42,56,0,43,27,  
0,48,42,57,57,42,55,46,51,44,"

18 LET E\$="0,0,0,0,0,0,0,0,0,0,  
0,0,0,0,0,0,0,0,0,0,0,0,0,0,  
0,0,0,0,0,0,0,0,0,0,0,0,0,0,  
0,0,57,45,42,0,40,45,52,46,40,4  
2,0,46,56,0,62,52,58,55,56,27,"

20 LET A\$=A\$+B\$+C\$+D\$+E\$  
120 LET M=1  
130 FOR N=1 TO LEN A\$  
140 IF A\$(N)=", " THEN GO SUB 20

0

150 NEXT N  
200 LET F\$=A\$(M TO N-1)  
204 LET F=VAL F\$+27  
206 IF F=27 THEN LET F=32  
207 IF F=54 THEN LET F=46  
210 PRINT CHR\$ F;  
220 LET M=N+1  
230 RETURN

## MATH GAME

Dick Wagner

The computer prints out the question  
concerning some bricks. Just enter  
your guess or calculation and see if  
you are correct the first time. This  
is another question from Marilyn's  
column in the Sunday Oregonian news  
paper.

This is a straight forward mathemat-  
ical problem put as simply as it can.

10 REM by Dick Wagner,  
Nov. 1992

20 PRINT "THIS QUESTION IS BAS  
ED ON THE PREMISE THAT ALL OF  
THE BRICKS INVOLVED WEIGH EQUAL  
LY."

25 LET W=4

30 LET B=2\*W

40 LET C=B+W

50 PRINT "IF A BRICK WEIGHS 4  
POUNDS PLUS A HALF A BRICK, HOW  
MUCH DOES A BRICK AND A HALF WEI  
GH?";: INPUT C

60 CLS : IF C<>B+W THEN PRINT  
"WRONG, TRY AGAIN": GO TO 25

65 PRINT : PRINT

70 IF C=B+W THEN PRINT "GOOD T  
HINKING, YOU ARE CORRECT"

## NUMBERS

Dick Wagner

The April 1987 issue of The Plotter  
carried a short program intended to  
mathematically determine a number  
between 1 and 100 that is entered  
into the program. That program does  
not work due to errors in the  
program and errors in the equation  
used to solve the problem. Odd that  
this was not reported by someone  
until recently when our Jack  
Armstrong tested it and found it  
would not work as presented.

As the program was poorly presented  
it seems best to re-do it in a more  
understandable form. The user is to  
input an integer number between 1  
and 100. The second input is the  
operator's calculation of  $N/3=A$ . The  
third input is the user's calcula-  
tion of  $A/5=B$ . The fourth input is  
calculation of  $B/7=C$ . Carry the  
calculation out to four or five  
places at least and round if  
desired.

The program uses the equation  
 $N=INT(70*C+21*C+15*C)$  to arrive at  
the number originally started with.

The inputs can be simplified by  
using  $N/3$ ,  $A/5$ , and  $B/7$ . Once the  
last input is made the answer is  
displayed.

>> >>

```

10 PRINT "SELECT AN INTEGER NU
MBER 1 TO 100. CALL IT N. MAKE
THE FOLLOW-ING CALCULATIONS, CA
RRIED OUT AT LEAST 3 PLACES, A
ND I WILL TELL YOU THE NUMBER.
THE CALCULATIONS ARE FOR
A, B, AND C.": INPUT N: PRINT N
30 PRINT "N/3= A ";: INPUT A:
PRINT A
40 PRINT "A/5= B ";: INPUT B:
PRINT B
60 PRINT "B/7= C ";: INPUT C:
PRINT C
80 LET N=70*C+21*C+15*C
90 FOR Z=1 TO 5
100 IF N>105 THEN LET N=N-105
110 NEXT Z
120 PRINT AT 12,6;"YOUR NUMBER
IS ";INT N
125 PRINT
130 PRINT "N=INT (70*C+21*C+15*
C)"
140 PRINT "N=INT (70*";C;" +21*"
;C;" +15*";C;" )"

```

# GW BASIC MOVING GRAPHICS!

Dick Wagner

It is possible to construct moving graphics with GWBASIC (and BASICA)! I located this type of minimal information in the book, IBM PC, An Introduction to the Operating System, BASIC Programming and Applications. The author is Larry Joel Goldstein. The publisher is Prentice Hall Press. It is also identified as a Brady Book.

I have learned a few kinks of this program that might entice a few readers to experiment. For some reason line 120 must be LOCATE 1,1. Other numbers seem to upset the graphic character.

Line 140 identifies the character block. If characters are combined then 8 is added to X and or Y in line 140 for each additional character. Line 160 will require the 640-9 be changed by increasing 9 by 8 for each character added.

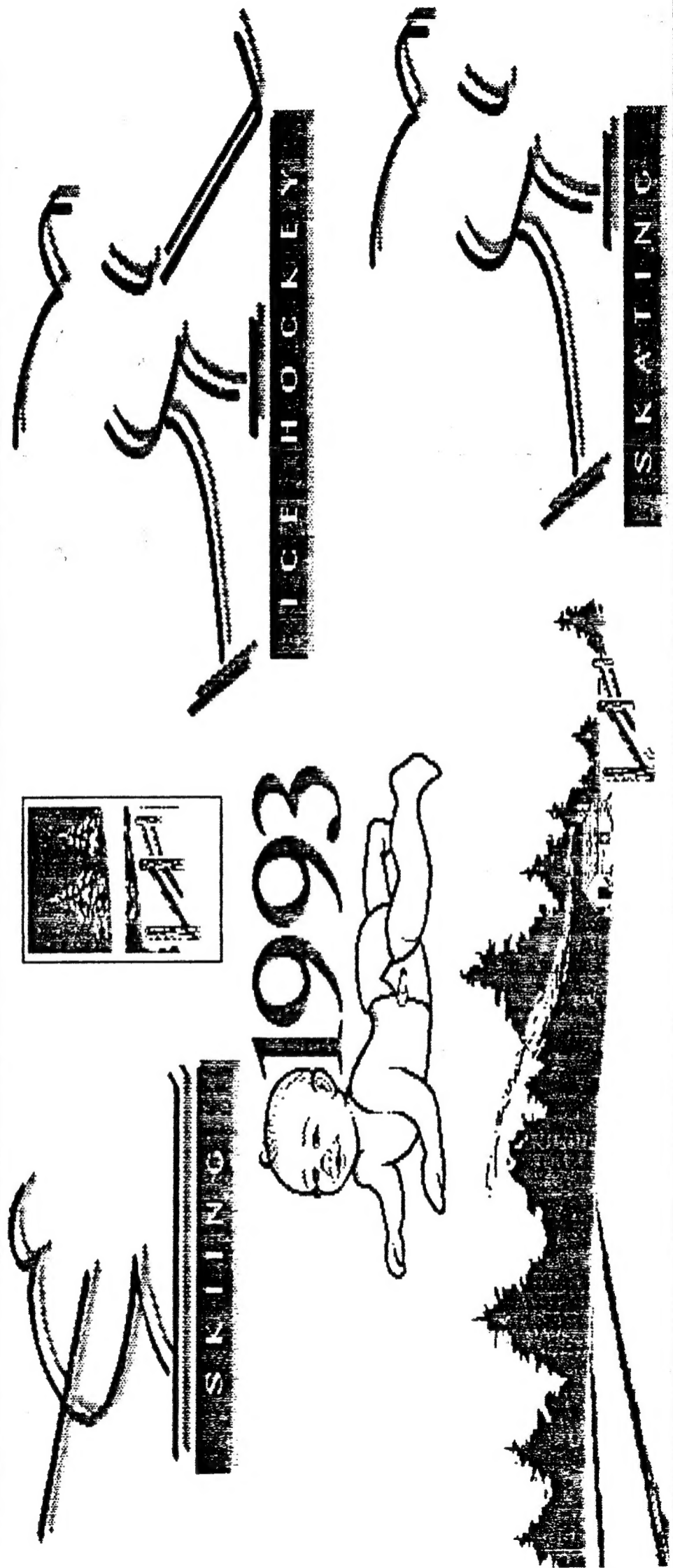
Lines 170 and 180 position the character so the 40 can be changed to some other printing line. Remember that these are pixels so 8 pixels equal one line width.

Changing the Y position in lines 170 and 180 will shift the printed line up or down. Try different values for these lines. The first and last printed characters do not blank out if Y is not the same for each of these lines.

This method should work for a side scrolling message in 80 column format if the message is short. This will require a left scroll. Maybe our next issue will have more on this subject. All of this is strangely familiar, kind of reads like experimenting with my TS 1000 and 2068.

```
10 'GWBASIC graphics!
20 'this program moves a character across the screen
30 'if SCREEN 1 is used change line 160 to 0 TO 311
100 SCREEN 2
110 DIM CHARACTER(9)
120 LOCATE 1,1
130 PRINT CHR$(175)
140 GET (0,0)-(7,7),CHARACTER
150 CLS
155 FOR T=1 TO 4
160 FOR XPOS=0 TO (640-9)
170     PUT (XPOS,40),CHARACTER
180     PUT (XPOS,40),CHARACTER
190 NEXT XPOS
195 NEXT T
200 END
```

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